

A2

network is accessed--[therefor;

in line 6, cancel "wherein it is necessary" and substitute --and the network

A3

requires one--[therefor;

in line 7, cancel "means of";

5

in line 8, cancel "Besides" and substitute --in addition-- therefor;

in line 9, cancel ";;";

above line 12, insert --Description of the Related Art--;

cancel lines 12-13 and substitute --An intelligent network IN architecture

offers services in a communication network to users of this network. These--

A4  
10

therefor;

in line 14, cancel "referred to as";

in line 18, cancel "has the" and substitute --stores-- therefor;

in line 19, cancel "stored", cancel "purposes of" and before "storing",

insert --e.g.,--;

15

in line 20, after "nodes", insert --,--;

in line 23, after "in", insert --such--, and cancel "thereby";

in line 24, cancel "what is referred to as", and cancel "calling'. The" and  
substitute --calling' service, in which the-- therefor;

in line 25, cancel "hereby";

20

in line 27, cancel "for purposes of gaining" and substitute --to gain", and

cancel "aforementioned" and substitute --this-- therefor; and

in line 28, before "when", insert --(e.g.,--, and cancel "got lost, for

example" and substitute --is lost)--[therefor.

A5

### On page 2:

25

in line 1, after "example", insert --,--;

in line 4, after "all", insert --of--;

in line 5, after "i.e.", insert --,--;

in line 8, cancel "spy out" and substitute --inappropriately acquire--

therefor;

in line 9, cancel "spying out" and substitute --acquiring-- therefor, after "it", insert --by--, before "user", insert --authorized--, and cancel "with respect to the input" and substitute --entering it-- therefor;

5 in line 10, cancel "also" and substitute --or-- therefor, and after "monitoring", insert --;--;

above line 14, insert --SUMMARY OF THE INVENTION--;  
cancel line 16 and substitute

-- This object is achieved by a method for securing access of a user to a service in an intelligent telecommunication network, comprising the steps of  
10 entering, by the user, an unambiguous digit sequence in a terminal device, the digit sequence being only known to the user of the service, encoding the digit sequence and an additional variable parameter using an encoding function which thus produces a function calculation result, transparently transmitting the function calculation result containing the digital sequence, using multi-frequency dial  
15 methods, in the communication network up to a central entity, and evaluating the transmitted digit sequence in the central entity and permitting the user to use the service if the evaluation is positive and if a previously transmitted digit sequence has not been received within a fixed time interval. -- therefor;

20 in line 20, cancel the first "the" and substitute --An-- therefor, and cancel the last "the" and substitute --an-- therefor;  
in line 21, cancel "means" and substitute --way-- therefor;  
in line 23, cancel "whereby" and substitute --in which-- therefor; and  
in line 24, cancel ";" vice versa" and substitute --from x; however--  
therefor.

25

**On page 3:**

in line 1, after "this", insert --result--;

in line 2, after "sequence,", insert --and--, and after "signaling", insert --,-

-;

30 in line 3, after "nodes", insert --,--;

✓ in line 8, cancel “,” and substitute --using-- therefor;

✓ in line 9, cancel “in the [sic]” and substitute --to the-- therefor;

✓ in line 14, cancel “outlay” and substitute --expenditure-- therefor, and  
cancel “already present” and substitute --already-present-- therefor;

5 in line 15, cancel “already received” and substitute --already-received--  
therefor;

✓ in line 18, cancel “outlay” and substitute --expenditure-- therefor, and  
after “since” insert --they also required entry of--;

10 in line 19, cancel “previously had to be entered as well”;

in line 20, cancel “This misuse is hitherto” and substitute --Misuse is--  
therefor, and after “possible,” insert --even absent access to the credit card--

*A7*

in line 23, cancel “means of”;

in line 24, cancel “In this case, the” and substitute --But with the  
inventive method-- therefor; and

15 in line 25, cancel “from the”.

**On page 4:**

*A8*

in line 1, cancel “Thereby, a tapping trial” and substitute --With such a  
scheme, a tapping attempt-- therefor, and after “example”, insert --,--;

cancel line 4 and substitute

20 -- This object is also achieved by a device in a telecommunication network  
for utilizing services offered in this network, with a telecommunication terminal  
device, which makes it possible for a user, by means of an input device, to dial-up  
a service and to enter a digit sequence for the authentication, with at least one  
switching node that transparently forwards the service call and the digit sequence

*AA*

25 and with a central entity in this network, which evaluates the service call and  
which carries out an authentication of the user on the basis of the entered digit  
sequence, characterized in that an encoding device exists, with an input device for  
a digit sequence and with a calculation device for calculating a result from the  
mathematical function and the digit sequence and with an output device for

*A10*

transmitting the calculated result as multi-frequency dial tone and the authentication digit sequence is entered into this device, is encoded there and the result of this encoding, in the multi-frequency dial tone, is transmitted via the terminal device into the network and the central entity carries out an authentication procedure before access to the dialed-up service in the intelligent network is allowed. --therefor;

in line 6, cancel "thereby";

in line 7, cancel "of" and substitute --used by-- therefor;

in line 8, cancel "means" and substitute --way-- therefor;

eliminate the paragraph break at the end of lines 10 and 11;

in lines 15-16, cancel "this course of action" and substitute --the inventive method/device-- therefor;

in line 16, cancel "already" and cancel "number a longer period of" and substitute --digit sequence long--;

15 cancel lines 17-18 and substitute --before actual usage of the device, which prevents unauthorized observation of the digit sequence input. --therefor;

*A10*

cancel line 20 and substitute --Advantageous embodiments and developments are provided when a variable parameter provided to the encoding function is a time specification, is a random number, or is taken from a number sequence that can be calculated. Furthermore, the encoding function can be a single-step method, or a two-step method according to ITU X.509. The encoding function can also be a method according to RFC 1938 or a hash function. --therefor;

20 in line 23, cancel "works" and substitute --elements-- therefor;

25 in line 24, cancel "named, wherein" and substitute --specified, in which--; therefor;

in line 26, after "present", insert --in such a network--;

in line 27, after "from", insert --the--; and

in line 28, cancel "imaginable" and substitute --usable-- therefor.

**On page 5:**

in line 1, cancel "here" and substitute --in these-- therefor;  
in line 7, after "example", insert ----;  
in line 8, after "of", insert --an--, and cancel ". In this case," and  
5 substitute --, in which-- therefor, and cancel "on one hand";  
in line 9, cancel "Further" and substitute --Furthermore-- therefor;  
in line 11, cancel "synchronized otherwise" and substitute --otherwise  
synchronized-- therefor;  
in line 13, cancel ", whereby" and substitute --in which-- therefor;  
10 in line 14, cancel "up" and cancel "value" and substitute --values--  
therefor;  
in line 17, after "X.509", insert --Information Technology - Open Systems

Interconnection - The Directory: Authentication Framework ITU-T

Recommendation x.509, 11/93--

15 in line 18, after "1938", insert --Request for comments: 1938, May 1996,

A one-time password system, N. Haller, Bellcore, C. Metz, Kaman Sciences  
Corporation, --

in line 23, cancel "MFV" and substitute --Multi-Frequency (MFV)--  
therefor;  
20 in line 25, cancel "means" and substitute --way-- therefor;  
in line 27, cancel "and it" and substitute --, which-- therefor; and  
in line 28, cancel "it" and substitute --two-step encoding-- therefor.

**On page 6:**

25 in line 1, cancel "A" and substitute --In two-step encoding, a-- therefor,  
and cancel "thereby ensues" and substitute --occurs-- therefor;  
in line 2, after "pass", insert --occurs--;  
in line 11, cancel "MVF [sic]" and substitute --MFV-- therefor;  
in line 14, cancel ". It is thereby detected" and substitute --, which  
determines--;

in line 15, cancel "be" and cancel "detected" and substitute --determine--  
therefor;

in line 20, cancel " ." and substitute --, and if so,-- therefor;

in line 21, cancel "When this is the case";

5 in line 22, cancel "In the other case" and substitute --Otherwise--  
therefor;

in line 23, cancel "means" and substitute --way-- therefor; and

in line 29, cancel ". Thus," and substitute --so that-- therefor.

**On page 7:**

10 in line 7, cancel the first "the" and substitute -, a-- therefor;

in line 9, cancel "In particular, the" and substitute --Particularly--  
therefor, and cancel " ." and substitute --,-- therefor;

in line 10, cancel "Particularly" and substitute --especially-- therefor;

in line 13, cancel "outlay" and substitute --expenditure-- therefor;

15 above line 15, insert --BRIEF DESCRIPTION OF THE DRAWINGS --;  
cancel line 16;

in line 17, before "the generation", insert --is a block diagram showing--  
therefor;

in line 19, before "the generation", insert --is a block diagram showing--,

20 and before "ITU", insert --the--, and cancel "," and substitute --,-- therefor;

in line 21, before "the generation", insert --is a block diagram showing--  
therefor, and before "ITU", insert --the--;

above line 24, insert --DESCRIPTION OF THE PREFERRED  
EMBODIMENTS--;

25 in line 24, after "entity", insert --service control point--;

in line 26, cancel "by means" and substitute --via-- therefor;

in line 28, cancel "En route,"; and

cancel line 29 and substitute --Switching centers (SSP) en route pass the

encoded access code transparently-- therefor.

NOTE CHANGE  
WRONG LINE

A14

**On page 8:**

cancel line 1 and substitute --The access code could be inappropriately

*AMS* acquired via--] therefor;

in line 2, after "tapping", insert ✓ --at this point--;

5 in line 4, before "access", insert ✓ --expected--, and cancel "to be expected";

in line 5, cancel "made [sic]" and substitute ✓ --created which reflects-- therefor;

in line 6, after "correct and", insert ✓ --thus whether--;

10 in lines 5-6, cancel "as a result thereof";

in line 10, cancel ✓ "thereby";

in line 13, cancel "are co-encoded here" and substitute ✓ --may be co-encoded-- therefor;

in line 18, cancel "an";

15 in line 21, cancel "means" and substitute --way-- therefor; and below line 22, insert

-- The above-described method is illustrative of the principles of the present invention. Numerous modifications and adaptions thereof will be readily apparent to those skilled in this art without departing from the spirit and scope of the

20 present invention. --

*AM* **Cancel page 9.**

**IN THE CLAIMS:**

**On substitute page 10:**

line 1, replace "Patent claims" with --WHAT IS CLAIMED IS--;

25 Please amend claims 1-3 as follows:

*AM* 1. (Amended) A method [Method] for securing [the] access of a user to a service in an intelligent telecommunication network [(IN)], comprising the steps of: